

AMPEX - NAGRA

VPR-5

WORLD'S LIGHTEST
TYPE C PORTABLE VTR



AMPEX

Editing In The Field Or Studio.

To begin with you're in C-format, which is a good place to start in post-production. To add to that, the VPR-5 has some nice amenities of its own. Its exclusive dual-cue editing allows studio-type control. Four edit-related functions characterize this VTR's professional ability: from let's see it reviews, and precise returns to the next edit point, to total control when replacing undesired material, and even mid-segment edits to new material.

Audio In The Best Tradition Of Nagra/Kudelski.

By jointly developing the Ampex Nagra VPR-5 recorder with Kudelski SA, Ampex capitalized on over 30 years of valuable experience in high quality audio acquisition. The name Nagra is known worldwide for small, rugged high quality audio recorders.

Advanced audio technology is built-in the VPR-5. You'll find features like a variety of interfaces available for microphone types and/or line inputs. And seven built-in switch-selectable filters to match scene acoustics, particularly low frequency reverberation cancellation.

You'll find a unique display using LCD for VU or PPM level. Even full individual record control lockouts for two audio channels and standard time code channel.

You'll even discover that the VPR-5 features an audio confidence playback selector independent of the video.

The Accessories. Logical Choices For A World Class VTR.

Naturally, this VTR has an interesting list of accessories. You can add a "Quick" charge power system that also serves as an AC power adapter. You'll be able to recharge up to six standard batteries in less than five hours.

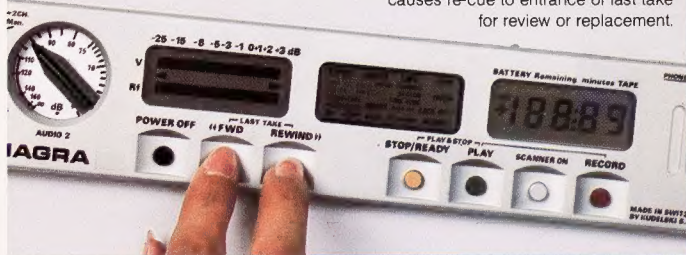
You can add video/audio adapters, plug-in side mounted modules containing standard interface circuitry for most video cameras, as well as audio system input. Blank modules are available for your custom use.

You can also get rack mounting for mobile van use, even mountings for wall or table top use.

Tape products available include a special Ampex 5.5 inch reel with 20 minute capability in a convenient dual pack box with matching take-up reel.

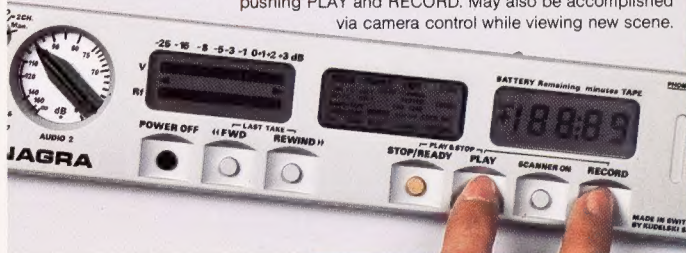
1. Field Editing Ease

Simultaneous activation of FWD/REWIND causes re-cue to entrance of last take for review or replacement.



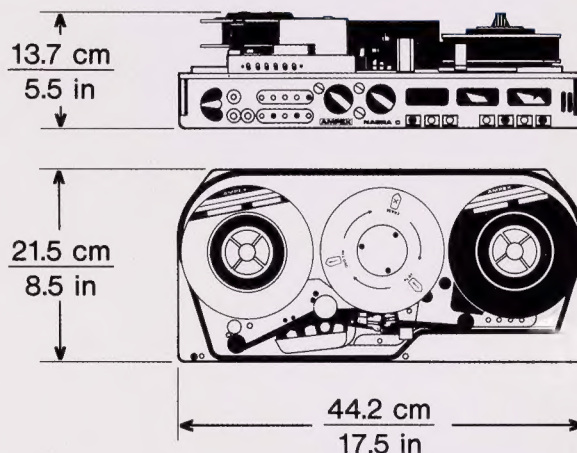
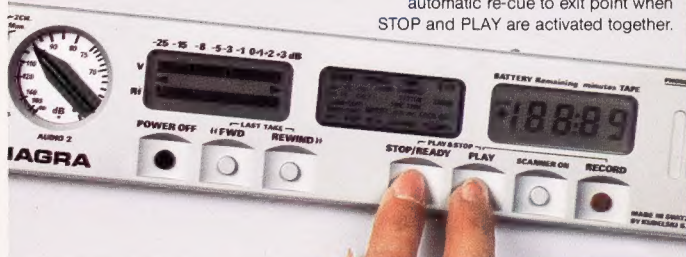
2. Edit Action

Selected mode (Assembly or Insert) activated by pushing PLAY and RECORD. May also be accomplished via camera control while viewing new scene.



3. Review Action

Scene of interest is replayed, with automatic re-cue to exit point when STOP and PLAY are activated together.



6.8 ^{*}KG.

To realize the goal of producing the world's first ultra-light C-format VTR, almost every aspect of VTR design underwent revolutionary thinking. Power efficiency and weight reduction on the Ampex Nagra VPR-5 is accomplished by turning to low-power, high speed dual microprocessors and aerospace design and machining techniques based on lightweight but extremely strong aluminum alloy. Every gram of unneeded weight was eliminated.

And everything from a new C-format scanner to the use of the latest SO (small outline) electronic components allowed the VPR-5 engineers to reach the goal of the world's lightest VTR.

Rugged Performance Worldwide. The VPR-5 recorder was designed for high quality field acquisition under extreme environmental conditions... from -10°C to $+45^{\circ}\text{C}$. It's now

possible to get high performance video acquisition as well as production/post-production utility, special effects, economy and quality in creating the final program... all in one-person operation.

More Features Than You'd Expect. The VPR-5 features full video and audio confidence playback, sophisticated audio processing, a high level of camera/VTR operator interface, and complete remote capabilities.

The optional microprocessor controlled built-in character generator means selected character signals can be seen in the viewfinder, and operator confidence is enhanced by the comprehensive yet easy-to-use operational and diagnostic functions.

Standard tape length is 20 minutes with 60 minute reel use also available. Naturally, the VPR-5 features SMPTE/EBU time code. And all world television standards will be available on this world class VTR.



**Less than 15 lbs., including 20 minute tape reels, battery and cover.*

INTRODUCING THE AMPEX NAGRA VPR-5

It Took Advanced European And American Technology To Make The World's Lightest, Most Portable VTR.



When Kudelski SA, a world recognized innovator in audio technology, and Ampex Corporation decided to design and produce a new portable C-format VTR, it came as no surprise that the result is the world's most advanced portable VTR. Weighing only 6.8 kg with dimensions of just 17½" x 8½" x 5½", the Ampex Nagra C is the first full

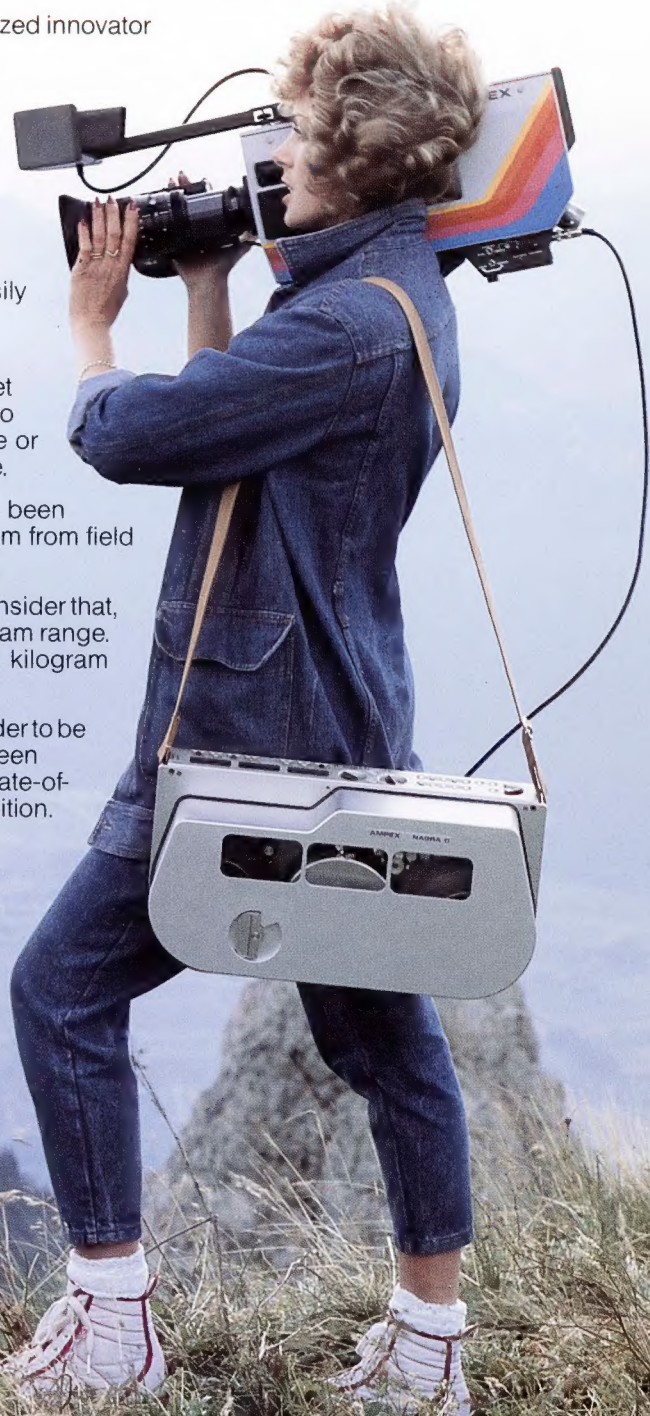
performance C-format VTR so small that it could easily fit in most briefcases.

The Ampex Nagra C recorder features all the quality and editing capability you'd expect from C-format, yet it's so rugged and lightweight that there is virtually no restriction on field acquisition. No matter how remote or difficult the terrain, one person can carry it anywhere.

This is exceptionally good news for anyone who has been forced to use ¾-inch video format, or to mix 16 mm film from field production with their video format.

This joint accomplishment is remarkable when you consider that, to date, "portable" C recorders fall into the 18-25 kilogram range. Now Kudelski SA and Ampex have added a svelte 6 kilogram portable to the Ampex family of professional VTRs.

We're confident you will find the Ampex Nagra C recorder to be a most unique and valuable field performer. It has been carefully crafted from its meticulous machining to its state-of-the-art electronics to provide the ultimate in field acquisition.



Ampex Nagra VPR-5 Specifications PRELIMINARY

Video and audio specifications are based on replay on VPR-2B

VIDEO AND SYNC

Bandwidth	NTSC 525/60	PAL/SECAM 625/50
S/N (Rhode & Schwarz unweighted with bandpass filter Demodulator video output)	Flat to 4.2 MHz ± 0.5 dB, -3 dB at 5.0 MHz	Flat to 5.0 MHz ± 0.5 dB, -3 dB at 6.0 MHz
LF Linearity	-46 dB peak-to-peak video to rms noise on interchange basis	-43 dB peak-to-peak video to rms noise on interchange basis
Differential Gain	2% blanking to white (max)	2% blanking to white (max)
Differential Phase (40 IEEE units of subcarrier thru TBC)	4% blanking to white (max)	4% blanking to white (max)
Chrominance/Luminance Delay	4" at 3.58 MHz off-tape (max)	4" at 4.43 MHz off-tape (max)
2T sin ² pulse & bar	20 n sec (max)	25 n sec (max)
Moire	1% K-factor (max)	1% K-factor (max)
	-40 dB color bars 75% amplitude 3.58 MHz subcarrier	-36 dB color bars 75% amplitude 4.43 MHz subcarrier

AUDIO (Channels 1, 2 & 3)*

Frequency Response (400 Hz Ref)	± 1 dB 500 Hz to 10 KHz
100 nWb/m	± 2 dB 50 Hz to 15 KHz
S/N with respect to 8 dB above reference level	-56 dB Audio 1 & 2 -50 dB Audio 3
Distortion (measured at 1 KHz)	
@ 100 nWb/m reference level (+8 dBm)	1% (max)
@ 251 nWb/m peak level (+16 dBm)	3% (max)
Depth of Erasure on its own recording	-70 dB
Wow & Flutter (NAB unweighted)	0.15% rms
Crosstalk (Audio 1 & 2) 1 kHz referenced to +8 dBm or 100 nWb/m	-50 dB (max)

*Audio 3 input line or time code generator, by PWA replacement.

AUDIO CONTROLS

Channel 1 & 2 controls:	
Mode	Rotary switches to set: Monaural with manual level; Monaural with AGC; Stereo with AGC; Dual chan. with manual level; Dual chan. with AGC.
AGC	AGC to be of peak compression type with operator control of limiting threshold.
Level controls	Rotary, continuous control
Input filter	Rotary switch selecting: Flat; Seven additional settings increasing low frequency attenuation.
Record enable	Toggle switches provided to individually control enable/disable of recording on each channel.
	Meters PPM or VU selectable by VTR internal program/jumper.
	Will indicate AGC limiting action simultaneous with level readings.

SIGNAL INPUTS

Video (75 ohms) BNC Connector	0.5 to 2.0 Volts peak-to-peak
Advanced Sync Reference	1 Volt peak-to-peak
Audio channels 1 & 2	
Mic (with optional interface):	150 μ V (min) @ 200 ohms
	40 dB above (max)
Line (with optional interface):	+8 dBm nominal @ 25K ohms bridging
	+24 dBm (max)
	-20 dBm (min)

SIGNAL OUTPUTS

Video 75 ohms BNC	1 Volt peak-to-peak
Audio Monitor Output Channels 1, 2, & 3	1 Volt peak-to-peak unbalanced, 600 ohms.
	Balanced or floating optional.
Maximum Output	+16 dBm
RF for ext. DOC use (75 ohm BNC)	0.3V to 1.0V range

GENERAL

Weight: including battery pack and 20 minute reel	6.8 kg (less than 15 lbs.)
Record Time	20 minutes with special 5.5 inch reels, in portable configuration.
	Can use 9" reels for 1 hour capacity.
Battery capacity	1 hour
Tape Speed (Nominal)	525 9.6 in/s
Video Writing Speed (Nominal)	625 9.44 in/s
Carrier Frequencies	1009 in/s
	7.9 MHz blanking level
	10.0 MHz peak white
Audio Equalization	7.68 MHz blanking level
	8.9 MHz peak white
	15 microseconds
	3180 microseconds
Scanner Run-up	15 microseconds
	Less than 2 seconds

TEMPERATURE & HUMIDITY

TEMPERATURE -10° to +45° C operating
HUMIDITY 10%-90% RH (non-condensing)

POWER REQUIREMENTS

For AC operation (optional adapter): 50/60 Hz, single phase
105/115 Volts AC at 1.0A Nominal
210/230 Volts AC at 0.6A Nominal
For external DC Operation: 10-18V, 40W Nominal, Record Mode

PHYSICAL DIMENSIONS

Height: 13.7 cm (5.5 inches)
Width: 44.2 cm (17.5 inches)
Depth: 21.5 cm (8.5 inches)

Ampex reserves the right to make product and specification changes at any time without notice.

AMPEX Ampex Corporation, Audio-Video Systems Division

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